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Carlo Bellettini, Miguel Felder, Mauro Pezzè

December 1993 **Proceedings of the 7th international workshop on Software specification and design**Full text available:  [pdf\(831.44 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

Real-time systems are becoming increasingly important in the everyday life. The use of such systems for critical applications requires tools and techniques for increasing correctness and reliability of the final product. In this paper, we describe a toolset (Merlot) for analyzing real-time system specifications. Merlot allows the automatic verification of temporal properties for a large set of specifications and requires the interaction with the user only when the complexity of the specification ...

**2 Navigating within the data: Modal navigation for hypermedia applications**

Franca Garzotto, Luca Mainetti, Paolo Paolini

May 1996 **Proceedings of the workshop on Advanced visual interfaces**Full text available:  [pdf\(6.74 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

Hypermedia applications combine the flexibility of navigation based-access to information, typical of hypertext, with the communication power of multiple media, typical of multimedia systems. By their very nature, hypermedia applications support *multimode* interaction, i.e., interaction based on a *combination of multiple modalities* that are induced by different media and different navigation paradigms. The potentially huge number of mode combinations in hypermedia can accommodate a ...

**3 Requirements engineering: Towards extensible graphical formalisms**

Carlo Ghezzi, Mauro Pezzè

December 1993 **Proceedings of the 7th international workshop on Software specification and design**Full text available:  [pdf\(600.10 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)

We discuss how to tailor a graphical notation on top of a kernel formal (graphical) specification language. The goal is to allow an environment supporting formal specifications written in a kernel formal notation to be extended to support additional, application domain oriented, graphical notations. The semantics of the newly defined notation is given by a translation scheme into the kernel notation. Our approach is founded on high-level Petri nets, the kernel formalism, and graph grammars, whic ...

**4 Text processing - where do we go from here?**

Sandra Piazza

October 1981 **Proceedings of the 9th annual ACM SIGUCCS conference on User services**



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**1** [Heart: An operating system nucleus machine implemented by firmware](#)   
N. Kamibayashi, H. Ogawana, K. Nagayama, H. Also  
March 1982 **Proceedings of the first international symposium on Architectural support for programming languages and operating systems**, Volume 17 , 10 Issue 4 , 2  
Full text available:  pdf(791.96 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)  
This paper discusses the role of microprogramming in operating system design and shows several things: (1) advantages of the efficiency which may be gained from microcoded operating system primitives, (2) selecting the most appropriate primitives for implementation, and (3) an analysis of the tradeoffs among software, firmware, and hardware. The authors propose a practical approach of enhancing computer architecture level, from a view point of functional hierarchy of operating systems. In o ...

**2** [Firmware approach to fast Lisp interpreter](#)   
Hiroshi G. Okuno, Nobuyasu Osato, Ikuo Takeuchi  
December 1987 **Proceedings of the 20th annual workshop on Microprogramming**  
Full text available:  pdf(1.14 MB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#)  
The approach to speed up a Lisp interpreter by implementing it in firmware seems promising. A microcoded Lisp interpreter shows good performance for very simple benchmarks, while it often fails to provide good performance for larger benchmarks and applications unless speedup techniques are devised for it. This was the case for the TAO/ELIS system. This paper describes various techniques devised for the TAO/ELIS system in order to speed up the interpreter of the TAO language implemented on t ...

**3** [Towards an efficient, machine-independent language for microprogramming](#)   
David A. Patterson, Karl Lew, Richard Tuck  
November 1979 **Proceedings of the 12th annual workshop on Microprogramming**  
Full text available:  pdf(913.17 KB) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)  
A machine independent low level language YALL is presented. This language produces microcode for two very different machines: Hewlett Packard HP 300 and Digital Equipment Corporation VAX 11/780. The efficiency of this language is tested by comparing two examples on both machines to microassembly coded versions. To our best knowledge, this is the first time programs have been compiled and executed on two different microarchitectures. These examples also let us compare the efficiency of the ...

**4** [Verification of microprogrammed computer architectures in the S\\*-system: a case study](#)   
W. Damm, G. Dohmen

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1 Improved methods for storing and updating information in the out-of-kilter algorithm

Samar Singh

May 1986 **Journal of the ACM (JACM)**, Volume 33 Issue 3Full text available:  pdf(1.12 MB)Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#), [review](#)

Currently, network codes based on the primal simplex algorithm are believed to be computationally superior to those based on other methods. Some modifications of the out-of-kilter algorithm of Ford and Fulkerson are given, together with proofs of their correctness and computer implementations using appropriate data structures. The computational tests in this paper indicate that the final code based on these modifications is superior to any previously implemented version of this algorithm. A ...

2 Status report of the graphic standards planning committee of ACM/SIGGRAPH: State-of-the-art of graphic software packages



Computer Graphics staff

September 1977 **ACM SIGGRAPH Computer Graphics**, Volume 11 Issue 3Full text available:  pdf(9.03 MB)Additional Information: [full citation](#), [references](#)

3 ARPS: a new real-time computer



Kenneth J. Thurber

October 1976 **ACM SIGARCH Computer Architecture News**, Volume 5 Issue 4Full text available:  pdf(1.14 MB)Additional Information: [full citation](#), [references](#), [citations](#)

4 Pen computing: a technology overview and a vision



André Meyer

July 1995 **ACM SIGCHI Bulletin**, Volume 27 Issue 3Full text available:  pdf(5.14 MB)Additional Information: [full citation](#), [abstract](#), [citations](#), [index terms](#)

This work gives an overview of a new technology that is attracting growing interest in public as well as in the computer industry itself. The visible difference from other technologies is in the use of a pen or pencil as the primary means of interaction between a user and a machine, picking up the familiar pen and paper interface metaphor. From this follows a set of consequences that will be analyzed and put into context with other emerging technologies and visions. Starting with a short historic ...